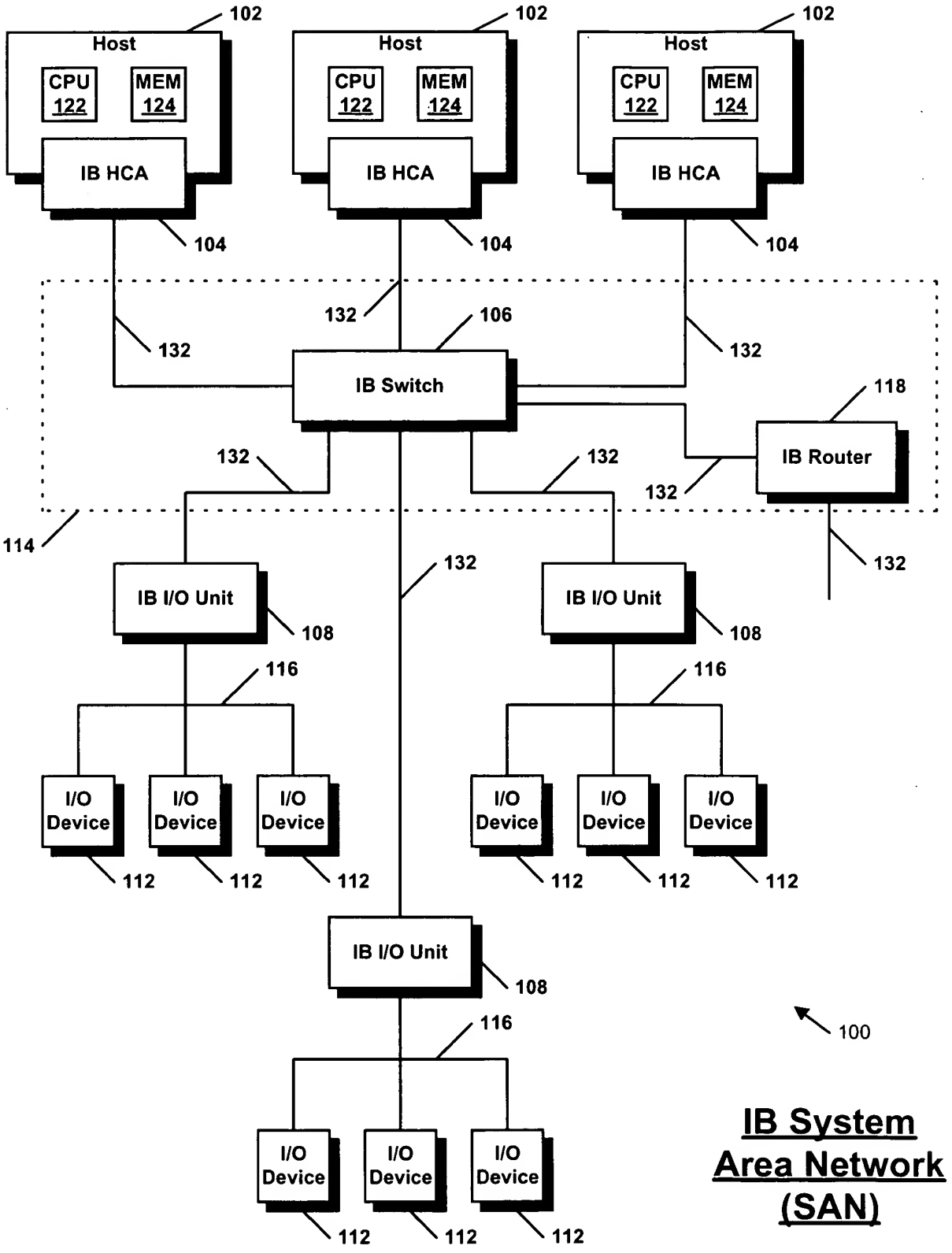
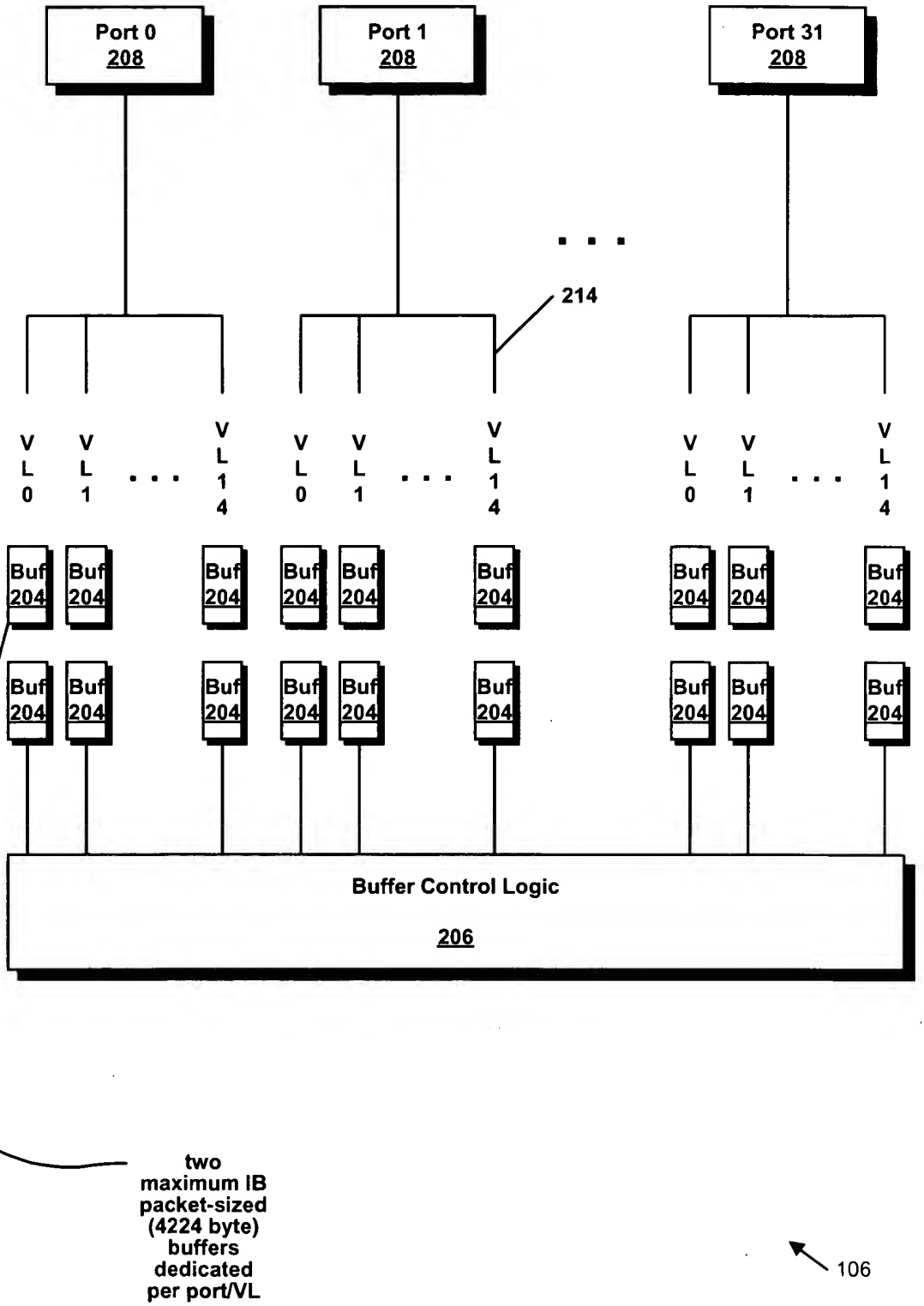
FIG. 1



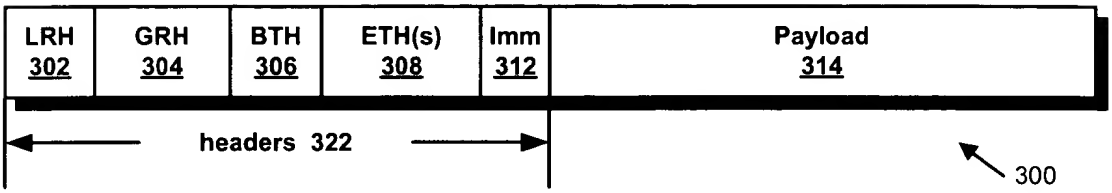
IB System Area Network (SAN)

FIG. 2 (Related Art)



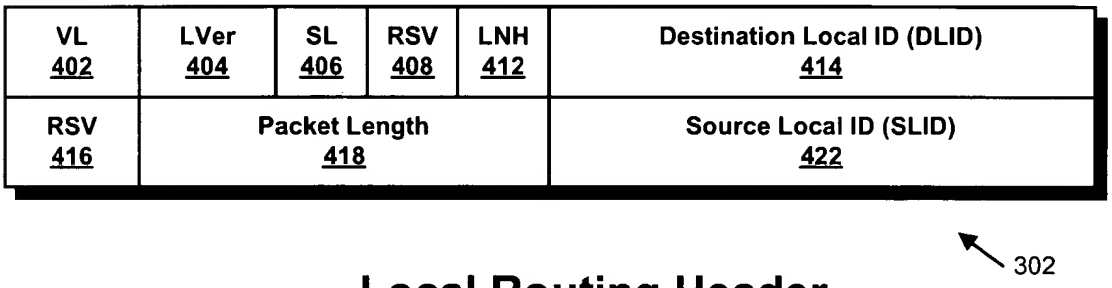
Conventional IB Switch

FIG. 3 (Related Art)



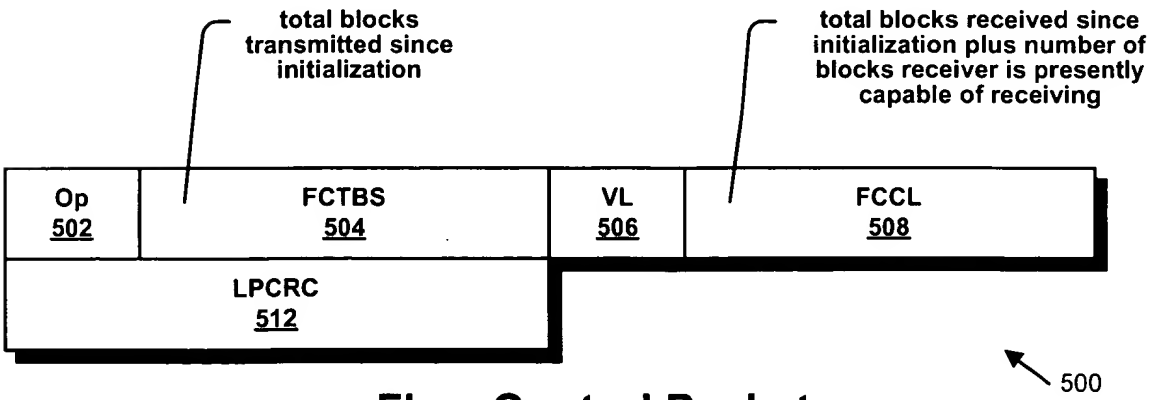
IB Data Packet

FIG. 4 (Related Art)



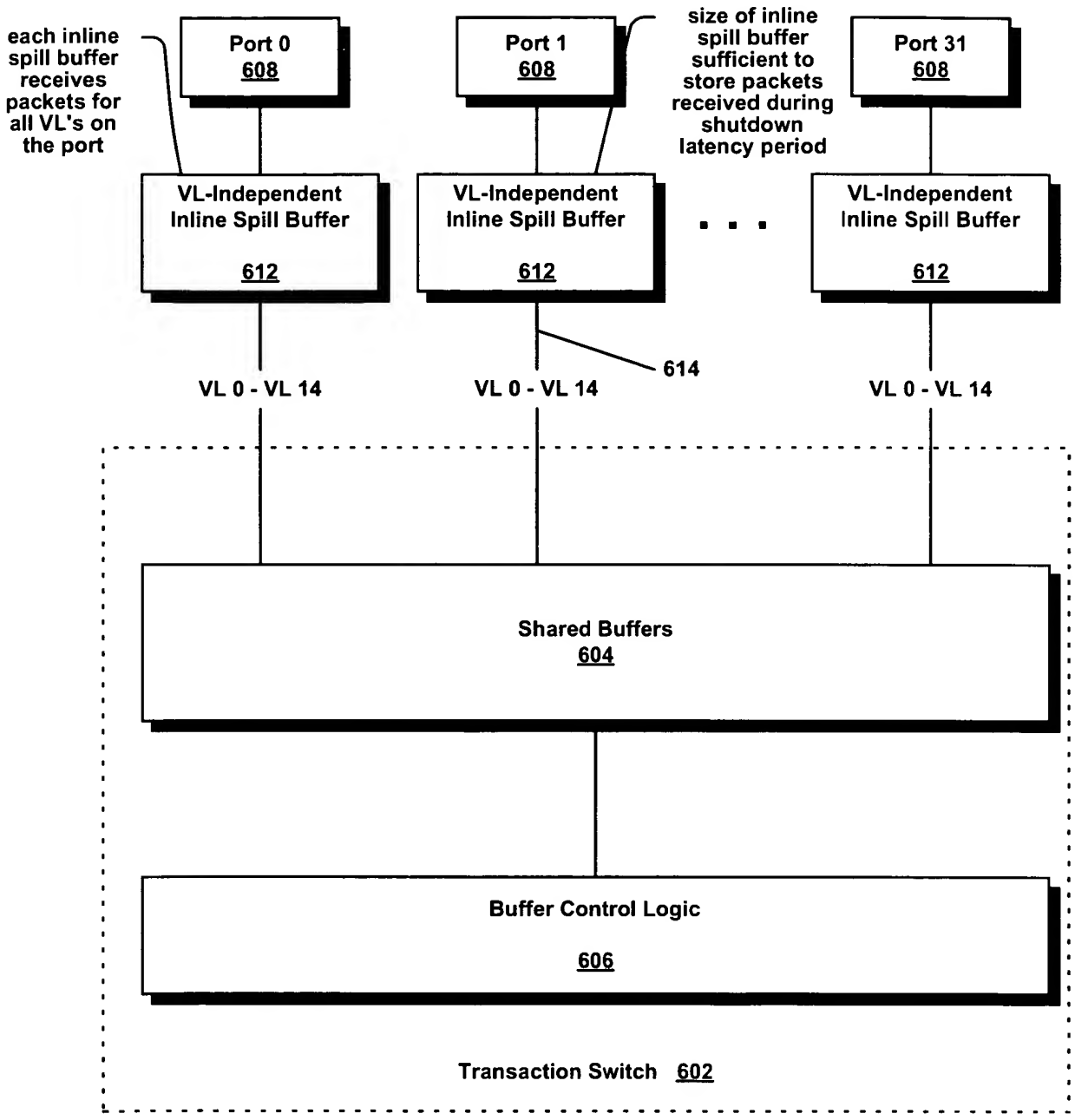
Local Routing Header

FIG. 5 (Related Art)



Flow Control Packet

FIG. 6



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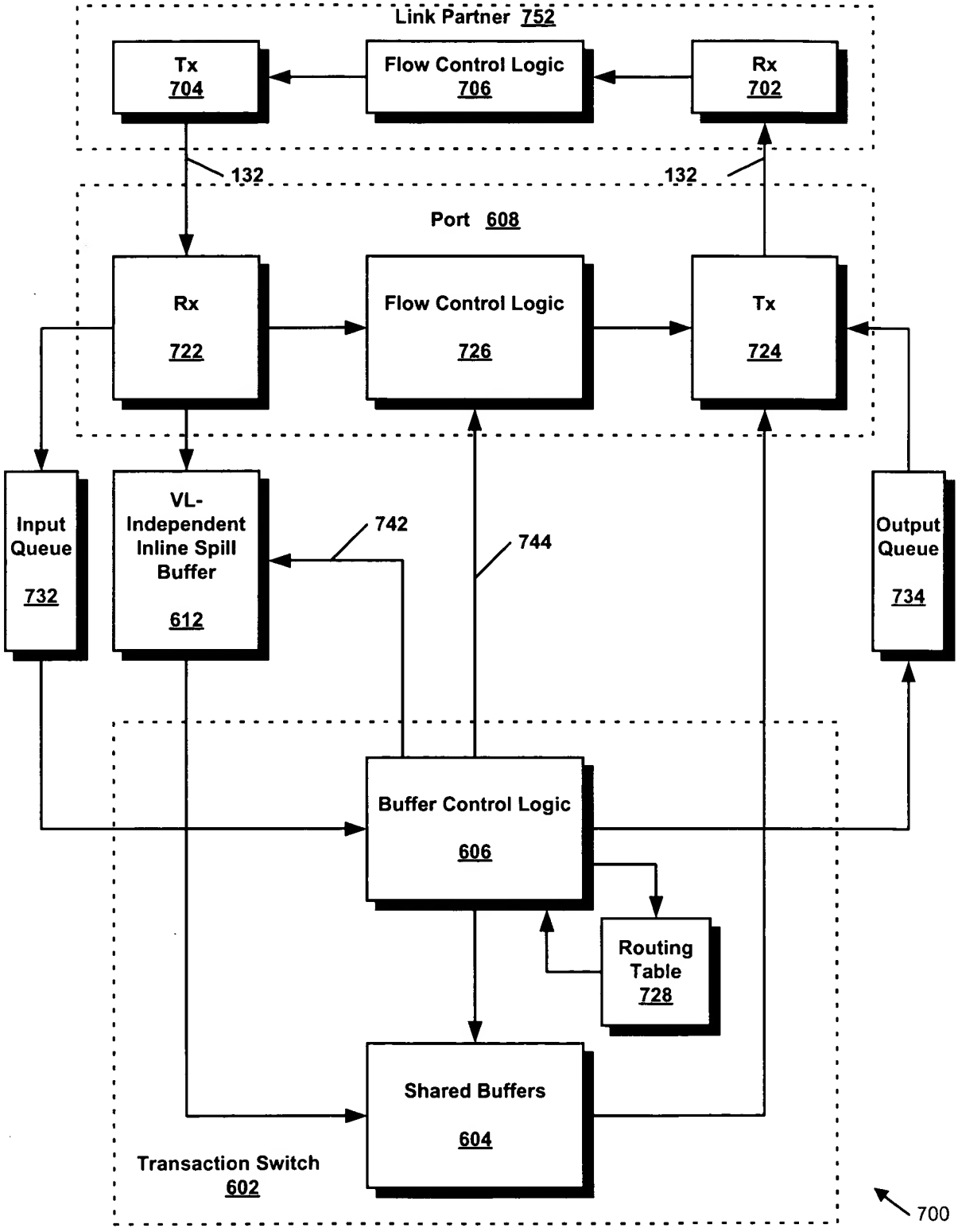
IB Switch Capable of Over-Advertising Buffering Resources Using Inline Spill Buffer

FIG. 7



Packet Buffering System Using Inline Spill Buffer

FIG. 8

Valid 802	Good Packet 804	VL 806	GRH present 808	DLID 812	SLID 814	Packet Length 816	Destination QP 818

800

Input Queue Entry

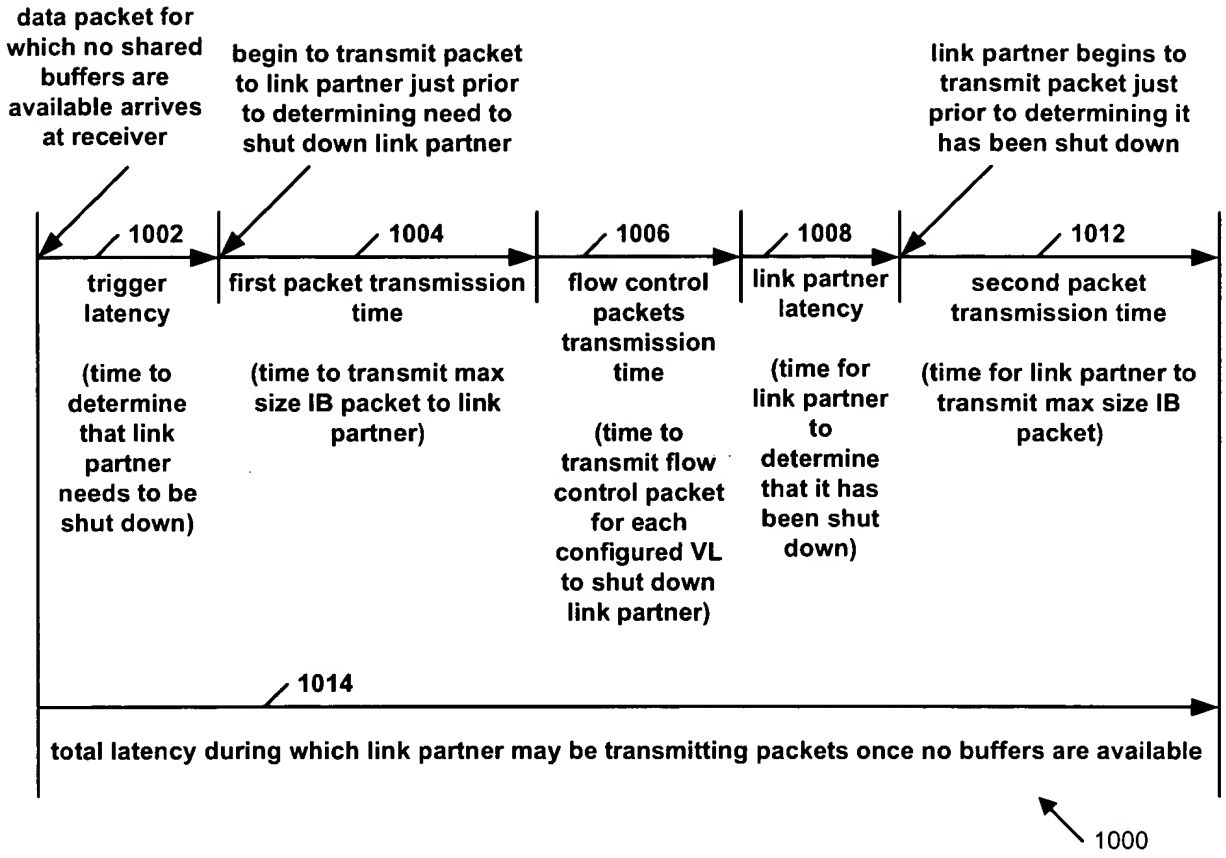
FIG. 9

Tag 902	VL 904	Packet Length 906	Chunk Address 0 908	Chunk Address 1 912	Chunk Address 2 914	Chunk Address 3 916	Chunk Address 4 918	Chunk Address 5 922

900

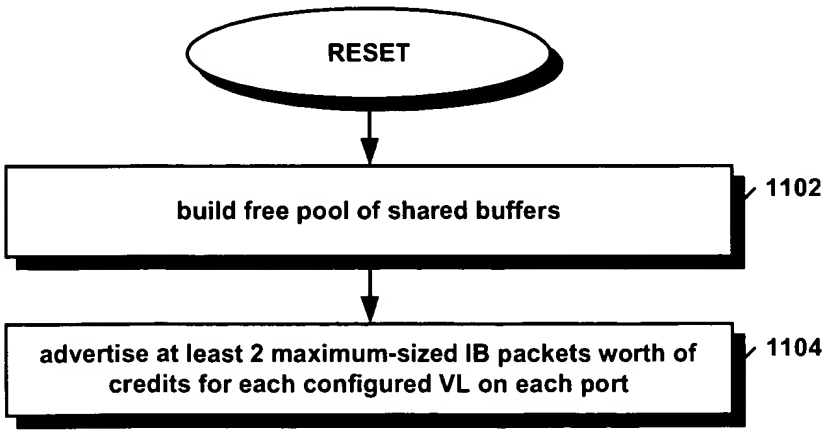
Output Queue Entry

FIG. 10



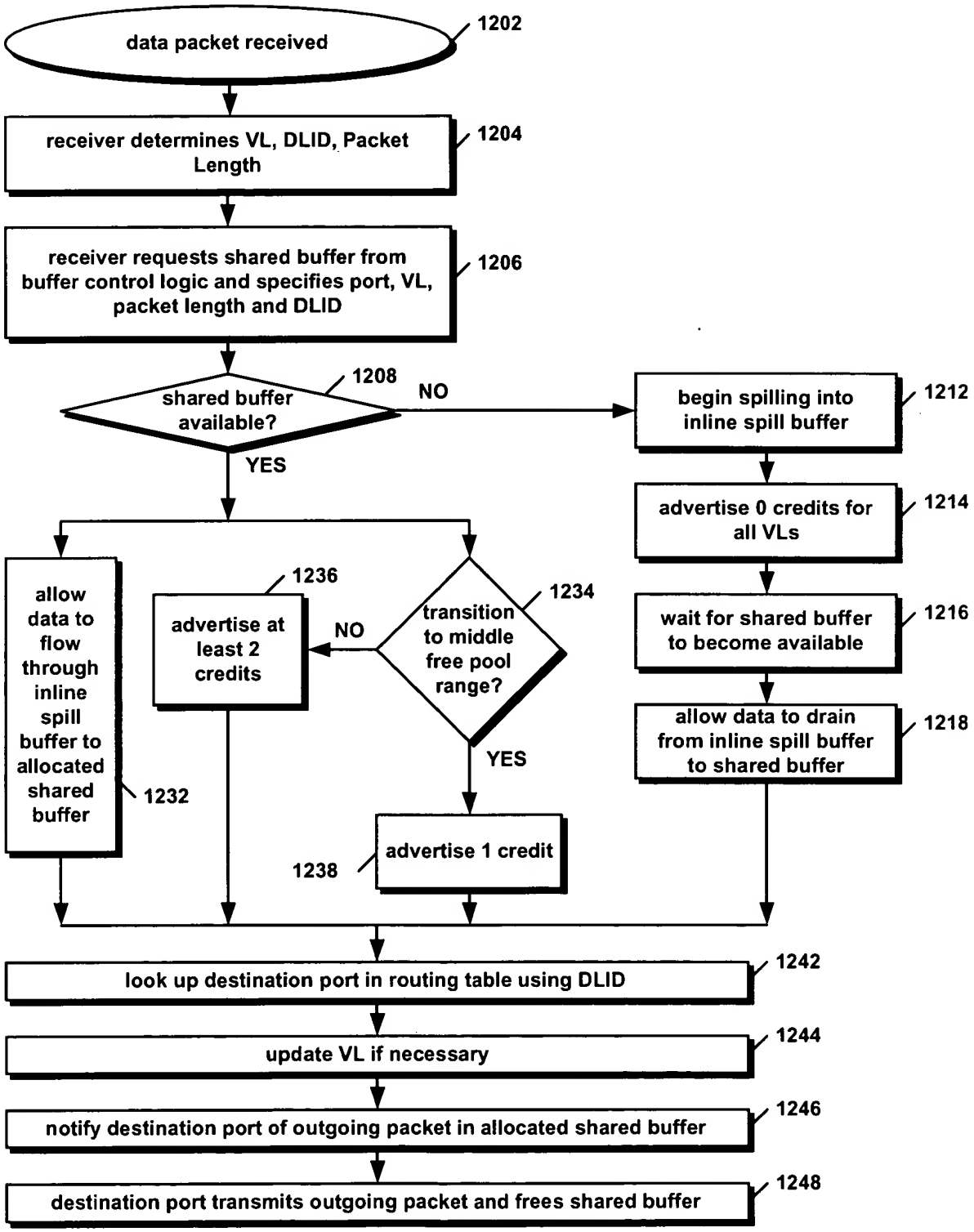
Timing Diagram For Determining Shutdown Latency

FIG. 11



Initialization

FIG. 12



Over-Advertising Flow Control

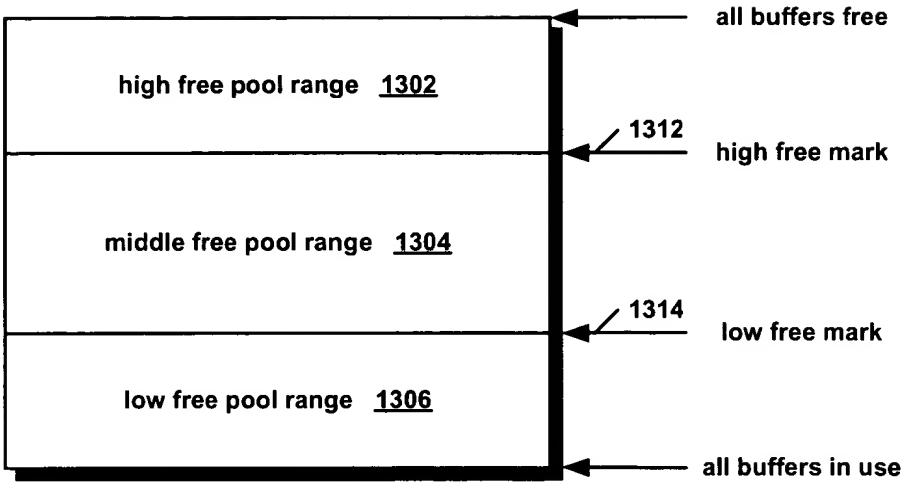


FIG. 13

Shared Buffer Free Pool Ranges

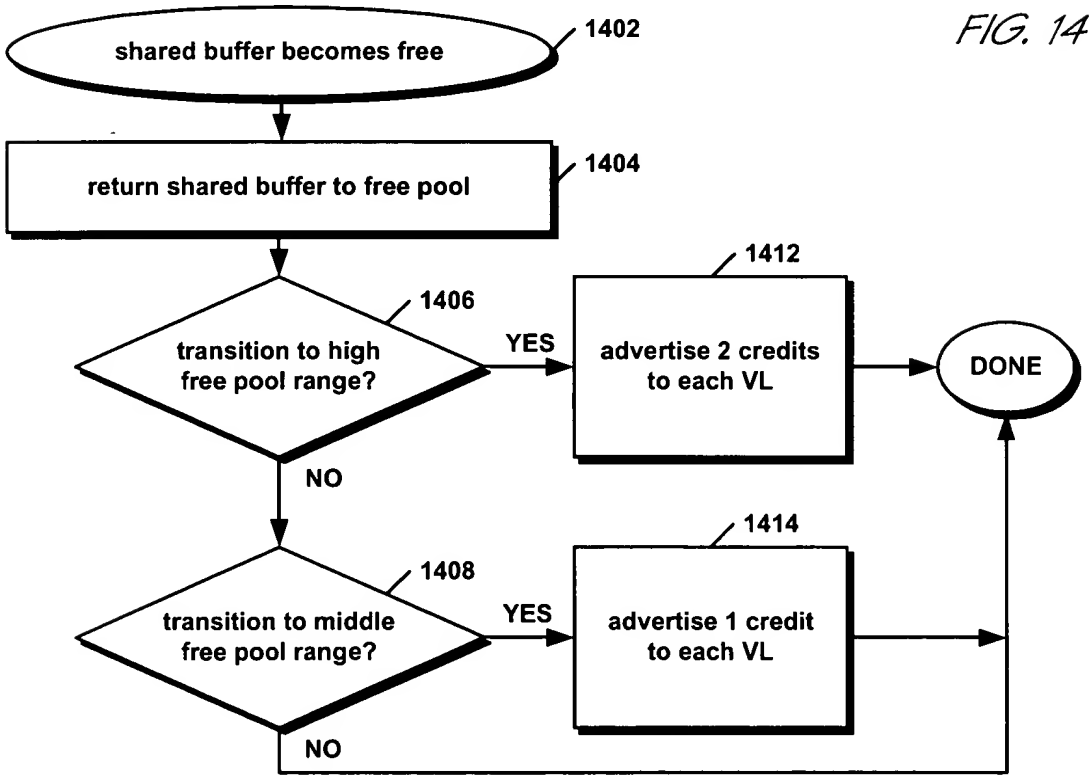
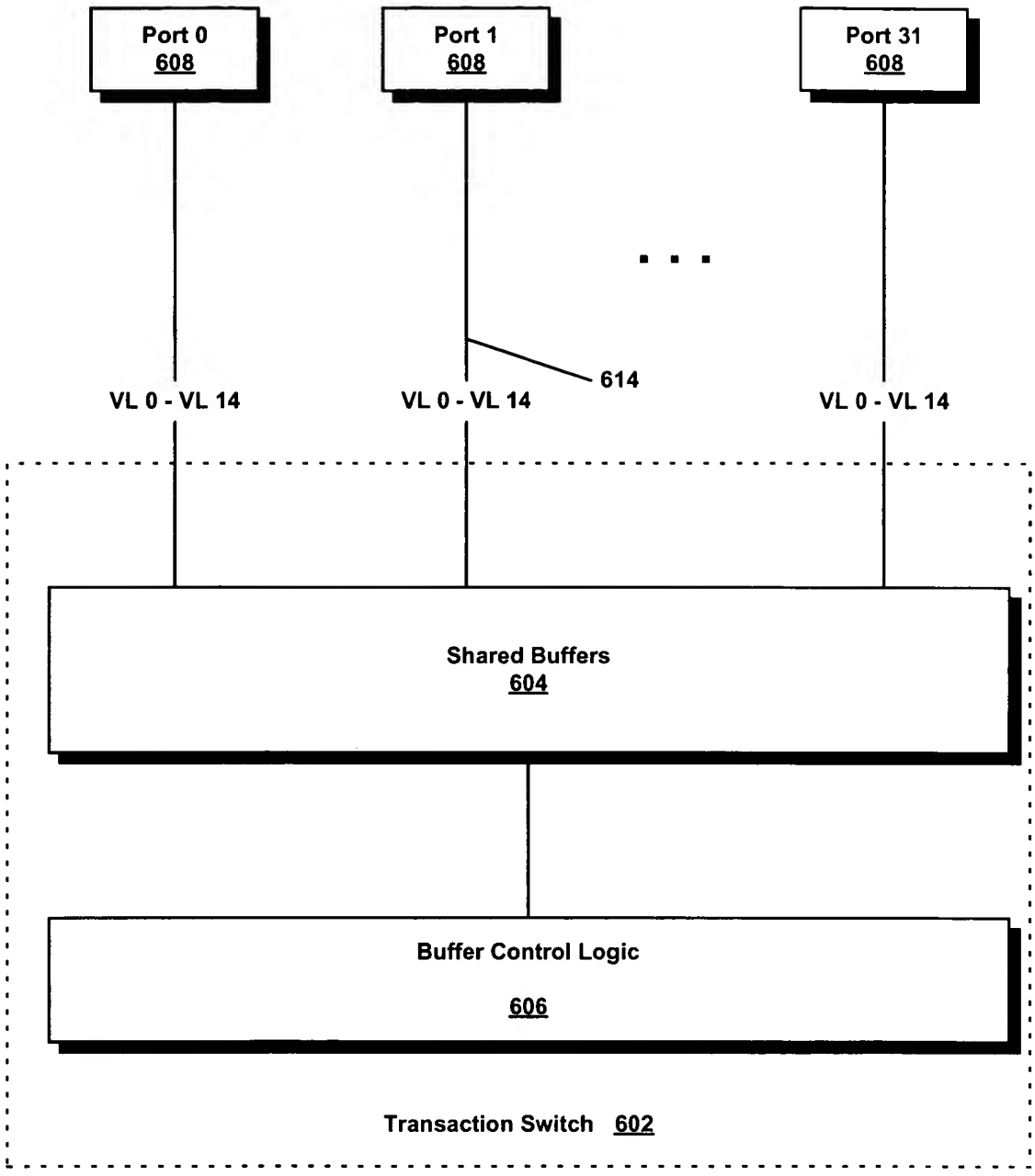


FIG. 14

Shared Buffer Free Action

FIG. 15



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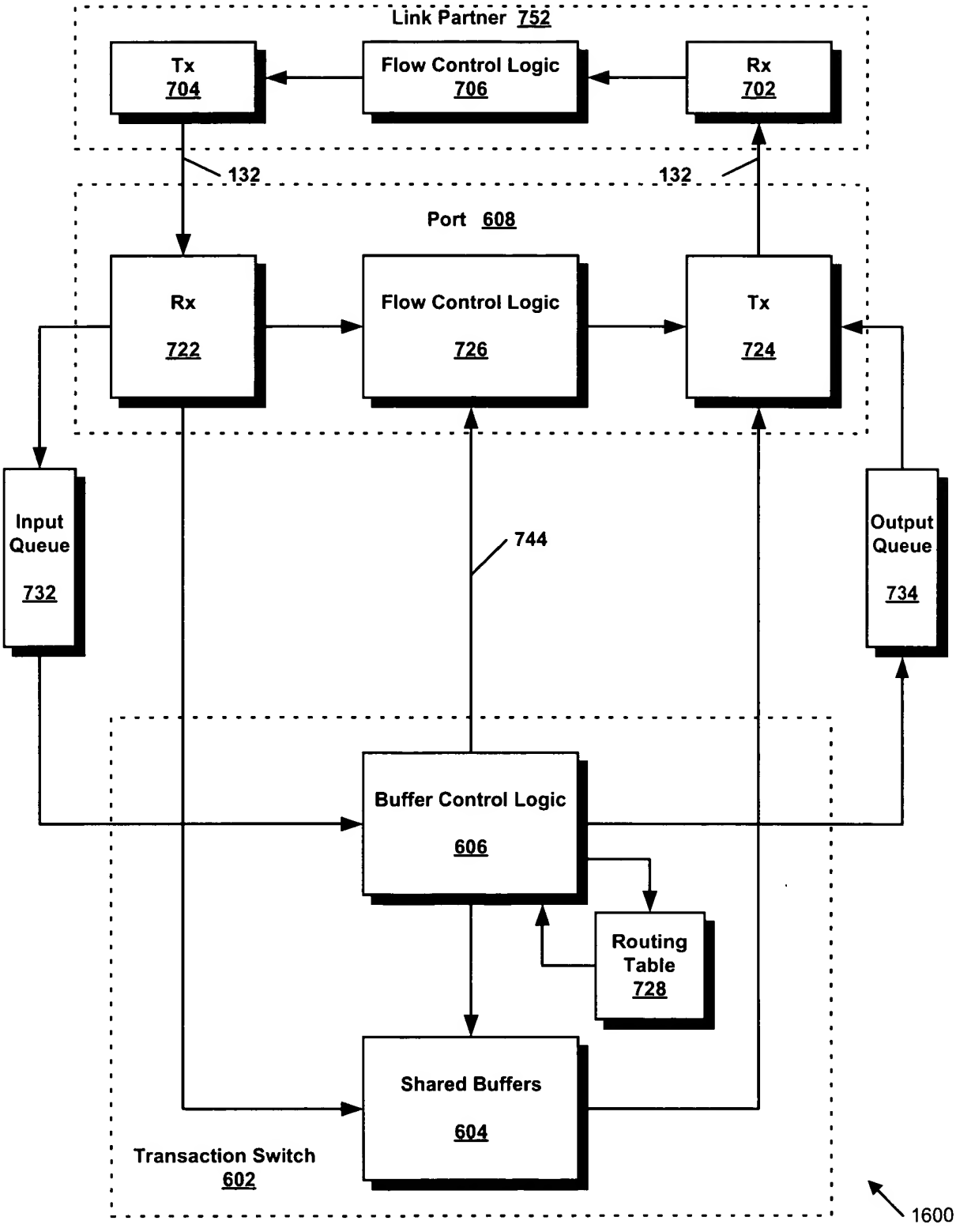
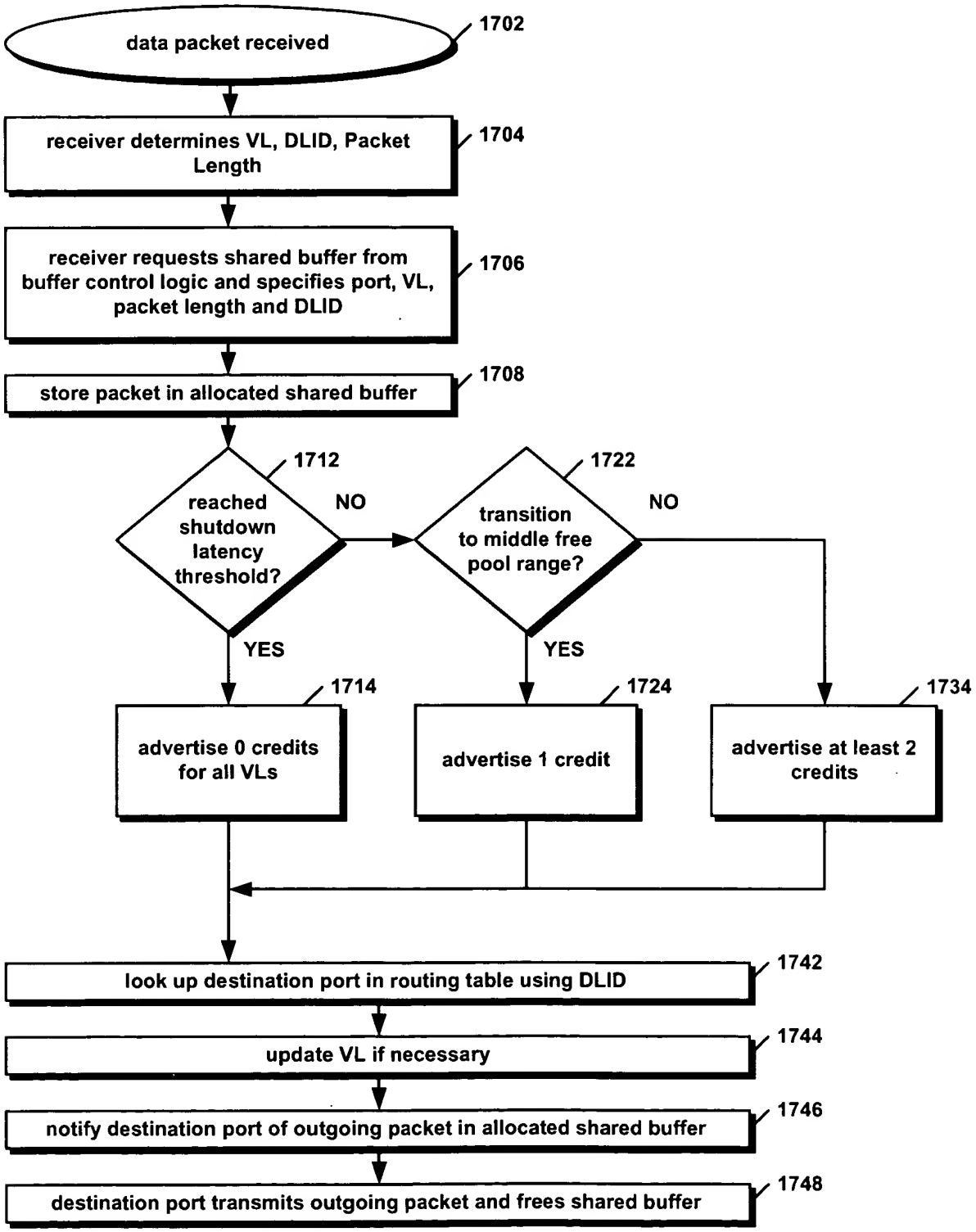
IB Switch Capable of Over-Advertising Buffering Resources Without Inline Spill Buffer

FIG. 16



Packet Buffering System Without Inline Spill Buffer

FIG. 17



Over-Advertising Flow Control

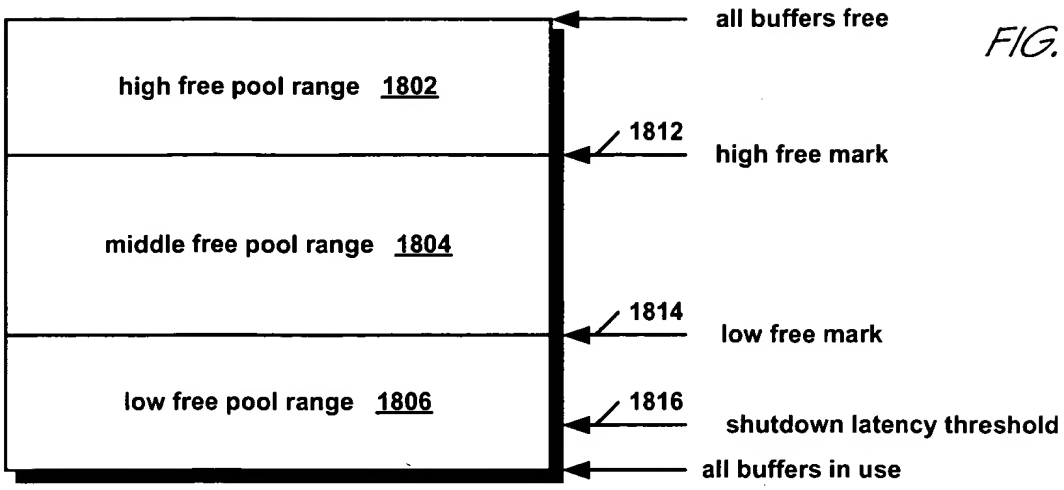


FIG. 18

Shared Buffer Shutdown Latency Threshold